### **Schoodic Education Adventure Program Options**

#### Frazer Point Welcome & Introduction

1hr– 2hr as time permits, ¼ mile easy walk across fields and shoreline

The SEA experience typically begins with an introduction at the Frazier Point Picnic Area. Students become familiar with the diverse natural and cultural resources preserved within our National Parks and the park service mission. Children explore the difference between preserving resources, the conservative use of resources, and the balance of each between national parks and other types of public agencies. Students review the basic regional history and pre-history of coastal Maine. A campus welcome option is available for groups with abbreviated time schedules or in the case of severe weather.

## **Map Mystery**

1hr - 1.5hr classroom program

Students are introduced to metric mapping and put their skills to the test as they plot resource site coordinates on a giant 30-foot floor map. Through a series of clues and props, students combine habitat and historic site information and discuss the current resource protection issues they discover.

## Digging Through the Layers of Time (Mock Archeology Dig)

2hr – 2.5hr classroom program

This classroom program highlights the importance of "position" in discovering and analyzing geographic and historical information and in telling the story of an archeological artifact. Students work in small teams to carefully excavate a mock archeological dig, mapping their assigned pit as they use a coordinate system to record where artifacts are uncovered. They examine the artifacts and interpret their use, ultimately sharing the information with the class through a presentation and exhibit. This program puts students' earth science knowledge, deductive reasoning skills, math and writing skills, and public speaking skills into practice as they discover and discuss relative dating and how evolving human habitation is evidenced over a chronological period.

#### Photo Journalism

2hr – 2.5hr part classroom and part outdoor

Through the combination of photography and science writing students create a magazine article for the "SEA magazine." Students learn how to capture and edit a photo and how to write a science-based story with photographs.

### **Marine Investigation**

2hr – 3hr moderate ½ mile walk to the tide pools

Students examine the diverse population trends of the upper shoreline as they estimate the populations of several benthic species at the high tide line, in crevasses, and at varying depths below the high tide mark as the weather and tide times allow. Students learn how to identify several basic marine organisms and then as a group randomly survey the distribution of each species in the inter-tidal zone. Students, record observations pertaining to each plot, and discuss conditions and adaptations that may affect which species thrives where. Data can be used by the teacher back at school, to graph the differences found at each depth. Additional exercises include taking photo plot surveys and comparing field data to digital photo data counted by different groups.

## **Marine Chemistry**

2hr – 2.5hr classroom program with flexibility to go on a moderate hike to the ocean

The program begins with an overview of watersheds and the water cycle. Students conduct basic chemistry tests for salinity, clarity, dissolved oxygen, pH, and assorted nutrient loading while investigating the properties of water. Students experiment with salinity and density to determine how these factors affect the currents in the Gulf of Maine.

### **Habitat Hike**

2hr − 3hr moderate hike along woodland and shoreline trails, 1 − 1 ½ miles in length

The Habitat Hike offers students the opportunity to become familiar with a wide range of ecological community changes and methods for examining (measuring) those changes. Utilizing many of the same techniques and tools used by actual researchers, the skills students learn on

the Habitat Hike will be reinforced throughout the program. Students will: learn how to use a dichotomous key to identify plants within the different parts of the forests structure (ground cover, under story, and canopy); learn how to determine position via topographical maps; plot data collection sites; record observations; participate in student "research teams" using basic tools to investigate percent cover and measure understory; learn <u>Leave No Trace</u> hiking techniques; and review habitat components.

#### **Forest Succession & GPS**

2hr – 2.5hrs part classroom and part ½ mile woodland walk

This is an active program that puts technology in the students' hands. Students study landscape succession from bare bedrock to maturing forest as they plot examples of forest succession. Through the use of interactive games, maps, and diagrams, students learn to navigate with a GPS unit and produce digital maps.

## **Citizen Science Investigations**

2hr - 3hr part classroom and part field study, depending on topic field section could be exploring campus, hiking moderate trails, exploring forest ground cover, or investigating wetland.

This program provides a look at current research projects within Acadia, examines the scientific method, data collection methods and actual field study. Topics center around climate study, phenology, and wildlife monitoring (salamanders, limpets, song birds and insects).

#### **Geology Hike**

2hr - 3hr moderate 1 mile hike.

This hike focuses on basic geology content while exploring excellent examples in the field. Concepts include: the rock cycle, deposition and erosion, sorting by wave energy, shoreline processes and glaciation.

#### **Soil Survey Walk**

2hr moderate walk, variable distances

Students experience a hands on field experience examining soil layers (or horizons), taking soil cores, and temperature. Students learn about physical and chemical weathering as they study layering in a soil pit. Using "tools of the trade" to collect data on localized percolation rates, soil pH, and core depths they construct soil maps of the campus area. The formation and types of different soil are addressed in the program. And during this time students also learn why soil is important to the health of an ecological community and its connections to humans.

### **Night Hike**

2hr - mainly outside with no flashlights (adults are given red lights for safety)

Students have a fun experience while learning about nocturnal adaptations, predator/ prey relationships, their five senses and astronomy (weather dependent).

## **Campfire**

1.5hr - 2hr outdoor activity

This evening program allows for decompression from academics and structured learning. Students learn the importance of responsible fire building (weather dependent) and engage in a number of different games, interactive stories, songs, legends and lore around the fire.

#### Art

1.5hr – 2hr classroom program

Students have the opportunity to participate in interactive programs offered by local artists, staff with art backgrounds, and Acadia's Artist-in-Residence program. Program format will differ with each artist. Sketching, painting, writing poetry, music and photography have been offered through this program.

### **Campus Test Quest**

## 1hr – 1.5hr GPS scavenger hunt on campus

A culminating activity that connects GPS skills with content learned during the week. Students navigate to different stations using GPS units. Each station differs and all focus on various sciences learned during the program.

# **Reflections Program**

# 1hr – 1.5hr classroom program

Students are given a chance to reflect on their time spent as a part of the SEA program. Students then write a postcard to themselves describing some of things that they learned and enjoy during their stay Schoodic. The goal of this program is to conclude the student's time and to provide them with a way to later remember their visit. Postcards are sent to the school to be given to each student later in the year.